

What is Claimed is:

1 1. A compensated amplifier, for amplifying an input signal applied to an
2 input node to provide an output signal at an amplifier output node, comprising:
3 a first amplifier stage having an internal node as an input thereto and
4 having a first stage output node;
5 a second amplifier stage coupled to said first amplifier stage, having
6 said input node as an input thereto and providing said output signal at said
7 amplifier output node; and
8 a capacitor coupled between said output node and said internal node,

1 2. A compensated amplifier according to Claim 1, wherein said second
2 amplifier stage is coupled to said first amplifier stage such that said first stage output
3 node is common with said amplifier output node.

1 3. A compensated amplifier according to Claim 1, wherein said second
2 amplifier stage is coupled to said first amplifier stage such that said first stage output
3 node is connected to said input node.

1 4. A compensated amplifier according to Claim 1, wherein said capacitor
2 is connected such that a left-hand-plane zero is provided in said compensated
3 amplifier.

1 5. A compensated amplifier according to Claim 4, wherein said left-
2 hand-plane zero is selected so as to optimize compensation for said compensated
3 amplifier.

1 6. A compensated amplifier according to Claim 1, wherein said first
2 amplifier stage comprises a bipolar transistor current mirror.

1 7. A compensated amplifier according to Claim 1, wherein, in operation,
2 capacitive current flows through said capacitor, and said capacitive current is sensed
3 at said internal node and amplified by said first amplifier stage.

1 8. A compensated amplifier according to Claim 7, wherein said first
2 amplifier stage comprises a diode connected transistor and a ratioed transistor
3 connected together forming a current mirror, and wherein said diode connected
4 transistor senses said capacitive current at said internal node and said ratioed
5 transistor amplifies said capacitive current.

9. A Miller-compensated amplifier, for amplifying an input signal
applied to an amplifier input node to provide an output signal at an amplifier output
node, comprising:

4 a first amplifier stage having an internal node as an input thereto, and
5 having a first stage output node;

6 a second amplifier stage having said amplifier input node as an input
7 thereto, and having a second stage output node;

8 a third amplifier stage having a third stage input node coupled to said
9 first stage output node and to said second stage output node, and providing
10 said output signal at said amplifier output node; and

11 a capacitor coupled between said amplifier output node and said
12 internal node.

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